

REMARKS

Claims 1-8 are pending in the present application. Claims 1-8 have been rejected under 35 USC § 102(b). Claim 7 is further rejected under 25 USC § 112, second paragraph. Claims 1, 4, 5, and 7 have been amended.

The Applicant appreciates the Examiner's thorough examination of the subject application and respectfully requests reconsideration of the subject application based on the above amendments and the following remarks.

35 U.S.C. § 112 REJECTIONS

The Examiner has rejected claim 7 under 35 USC § 112, second paragraph. The Applicant has amended claim 7. Accordingly, the Applicant believes that the grounds for rejection are moot.

35 U.S.C. § 102(b) REJECTIONS

The Examiner has rejected claims 1-8 under 35 USC § 102(b) as being anticipated by U.S. Patent Number 5,812,901 to Morikawa ("Morikawa" or the "Morikawa Reference"). The Applicant respectfully traverses these rejections in view of the above amendments and for the reasons provided below.

The present invention discloses devices and methods to prevent a current printing job from receiving an "out of paper" error message resulting from exhaustion of available paper by an interrupting job. As recited in claim 1, when the designated paper feeding tray for the interrupting job is the same as the paper feeding tray of the current printing job, a judging means determines whether or not the number of sheets needed to complete the interrupting job may impact the current printing job based on an estimate of the amount of paper remaining in the paper feeding tray. If the number of sheets of paper in the designated paper-feeding tray is greater than the number of sheets needed to complete both the current printing job and the interrupting job, then

the image-printing device will complete the current printing job and then execute the interrupting job.

Claims 1, 6, and 8

The Examiner maintains that,

Morikawa discloses an image forming device (figure 1) having a function for suspending a current job and executing an interrupting job (the abstract), comprising a plurality of paper feeding trays (80); and a judging portion for deciding whether the interrupting job can be permitted to use a paper feeding tray selected by the interrupting job in case the selected paper feeding tray corresponds to a tray used by the current job (column 1, lines 47-60).

Detailed Action at page 3. The Applicant respectfully disagrees.

The passage cited by the Examiner, however, discloses an image formation apparatus that "allows an interruption job during printing." More specifically, Morikawa discloses a control unit

for continuing the currently carried out job when determination is made of identical outlet by the determination unit, and switching to a printing operation of the interruption job when print data of the interruption job is ascertained.

Morikawa, col. 1, lines 56-60 (Emphasis added). Consequently, Morikawa teaches interrupting the current job and switching to the interruption job after determining that each have designated the identical paper feeding outlet.

Claim 2

The Examiner asserts that, Morikawa discloses a judging means that "does not permit the interrupting job to print data on paper when a paper feeding tray selected by the interrupting job corresponds to a tray selected by the current job but permits the interrupting job to print data on paper when the paper feeding tray selected by the

interrupting job is different from the paper feeding tray selected by the current job" at lines 27-45 of column 10. The Applicant respectfully disagrees.

On the contrary, Morikawa teaches away from the feature of the claim. Specifically,

If the outlet is not the same, a stop request is set since it is necessary to inhibit sheet feeding of the normal job immediately (#5533). If the outlet is the same, a process of transition to interruptive print out is effected while continuing sheet feeding of the normal job. Thus, when the sheet outlet selection mode at the interruption job mode setting is in an APS mode, printing of the normal job is continued while the original size of the interruption job is detected and the feed sheet outlet is ascertained, at which time point determination is made whether to continue the normal job or not.

Id., col. 10, lines 35-45 (Emphasis added). Thus, when the "outlet is the same", the image forming device transitions to printing the interrupt job. This contradicts the claim feature that when the same tray is designated, the apparatus "does not permit the interrupting job to print data".

Claim 3

The Examiner maintains that,

Morikawa discloses selecting a different paper feeding tray if the tray selected by the interrupting job corresponds to the tray of the current job (column 11, lines 29-47

Detailed Action at page 3. The Applicant respectfully disagrees.

However, Morikawa does not teach, mention or suggest "instructing the interrupt job to select a different paper feeding tray if a paper feeding tray selected by the interrupting job corresponds to a paper feeding tray selected by the current job". The cited passage merely discloses that if the calculated sheet size of the interrupt document to be printed is the same as the sheet-feeding cassettes, then the interrupt job can be printed immediately.

Claims 4 and 5

The Examiner asserts that, the features of claims 4 and 5 are disclosed between lines 26 and 31 in column 15 of the Morikawa reference.

The Applicant respectfully disagrees. The cited passage and the preceding paragraph provide the following:

The interruption print waiting determination routine of #5505 in FIG. 15 will be described hereinafter with reference to FIG. 25. At step #5900, determination is made whether the process is of a duplex side copy. At step #5903, determination is made whether the mode is a Nin1 copy mode. If either one of the conditions is established, determination is made whether the original read in process has ended at step #5909. In the present embodiment, the number of originals cannot be identified until all the originals are read in in a duplex copy operation or in an Nin1 copy operation since original reading is carried out from the last page. An interruption print waiting state is provided until completely reading in all originals since the print out side and position of the original first read out are not ascertained (#5911).

At step #5905, determination is made whether the sheet outlet of the interruption job is empty or not. In the case of "paper empty", a similar process at step #5911 is carried out. If determination is made that the paper is not empty at step #5905, printing of an interruption job is allowed. Therefore, the interruption print wait state is canceled (#5907).

Id., col. 15, lines 11-32 (emphasis added).

Referring to FIG. 25, the interrupting job is printed only (1) after the current printing job has been completed (Step #5909) AND (2) the sheet outlet is empty or not (Step #5905). The Morikawa device, therefore, does not calculate the total number of paper sheets needed by the current job and a total number of paper sheets needed by the interrupting job nor does it determine whether or not the number of remaining paper sheets is greater than the sum of the total number of paper sheets needed by the current job plus the total number of paper sheets needed by the interrupting job. Moriawaka merely teaches that once the current printing job is done, a determination is

made whether there is still some paper in the designated feeding tray, i.e., the tray is not empty. There is nothing to suggest that it also determines that there is enough paper to complete the interrupting job. Likewise, there is no suggestion that a judging means determines whether there is sufficient paper in the feeding tray to complete both jobs before the current printing job has been completed. Moriwaka teaches away from doing so.

Claim 7

In light of the amendment, claim 7 recites that the paper-feeding tray is locked so that it cannot be removed from the image-forming device. Column 17, lines 37-39 of Morikawa merely discloses that a sheet feed report indicating that a sheet from the designated feed tray is prohibited because a "refeed outlet is given priority. Thus, Morikawa is silent about the paper-feeding tray being physically locked in the image-forming device.

Accordingly, it is respectfully submitted that, claims 1-8 are not anticipated by Morikawa; and further, satisfy all of the requirements of 35 U.S.C. § 100, et seq., especially § 102(b). Accordingly, claims 1-8 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

If for any reason a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge or credit Deposit Account No. **04-1105.**

Respectfully submitted,

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